# BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

# STATE OF WISCONSIN

Petition of the Wisconsin Department of Transportation for the Relocation of a Public Crossing of the Soo Line Railroad Co. Tracks with CTH 'CV' in the Town of Burke, Dane County

9150-RX-543

#### FINAL DECISION

By letter dated September 21, 2004, the Wisconsin Department of Transportation (DOT) filed a petition with the Office of the Commissioner of Railroads (OCR) under §§195.28 and 195.29, Stats., for the relocation of a public crossing of the Soo Line Railroad Co. (Soo Line) tracks with CTH 'CV' in the Town of Burke, Dane County (crossing no. 392 328K / MP 28.73).

Pursuant to due notice, public hearing was held in this matter on October 28, 2004 in Madison, Wisconsin with hearing examiner Douglas S. Wood presiding.

On November 16, 2004, the hearing examiner issued a proposed decision. On November 3, 2004, the DOT filed comments supporting the proposed decision. The DOT notes the discussion of clearing sight distance (CSD) should be amended to reflect that while there are no obstructions in the CSD vision triangles that a motorist might not be able to see a train approach from the right due to the left-hand forward skew of the crossing.

DOT also requested that paragraph #1 in the Proposed Order be amended to reflect that the project will install the crossing, but the Soo Line will maintain the crossing.

The Commissioner amends the findings and order accordingly. With these changes, the Commissioner adopts the proposed decision as final.

#### Appearances:

## **Parties**

Wisconsin Department of Transportation, Petitioner by Mark Morrison, PE Grade Crossing Safety Engineer PO Box 7914 Madison, Wisconsin 53707-7914

As Interest May Appear:

Soo Line Railroad Co. (by letter)
by
Jim Krieger, Manager Public Utilities
PO Box 530
Minneapolis, MN 55440

# Findings of Fact

## THE COMMISSIONER FINDS:

The Wisconsin Department of Transportation and Dane County propose to relocate the public crossing of the Soo Line Railroad Co. tracks with CTH 'CV' in the Town of Burke, Dane County. The DOT and Dane County propose to relocate the Soo Line tracks approximately 1300' west of its current location and to reconstruct part of CTH 'CV' in the 2005 and 2006 construction seasons. The crossing would be moved about 2100' to the southwest. The purpose of the project is to move the railroad tracks and the highway out of the runway safety area at the Dane County Regional Airport.

CTH 'CV' is 24' wide with 6'-wide shoulders (2' paved) and intersects the Soo Line tracks at an angle of 40° on the west and 50° on the east (the difference in angle on each approach is due to a roadway curve that exists at the crossing. The roadway approaches to the crossing are 0.5% on the west and 0.3% on the east. The crossing consists of one mainline track. The existing crossing surface is timber-plank and asphalt and is in poor condition.

CTH 'CV' carried 10,800 ADT (average daily traffic) in 2004. The DOT projects CTH 'CV' will carry 14,100 ADT in the design year of 2024. The speed limit is 45 mph.

The railroad currently operates 2 through train movements per day over the proposed crossing location at a speed of 10 mph. However, this line of track between Madison and Portage has been designated as part of a high-speed rail corridor.

The reconstructed CTH 'CV' will be a 2-lane rural section with a 4'-wide raised center median on the approaches to the crossing. The median will extend approximately 150' in each direction from the crossing. The roadway will consist of two 12'-wide travel, two 5'-wide bicycle lanes, and two 6'-wide shoulders (3' paved). The roadway will be widened slightly at the crossing to allow bicyclists the opportunity to cross at a more nearly 90° angle. A concrete panel crossing surface is warranted based on the highway traffic volumes. In addition, under existing conditions there is a sharp roadway curve about 1400' from the crossing. By relocating the roadway and tracks, the curve will be flattened and will also be moved to about 3500' from the crossing.

A driver traveling at 45 mph needs a distance of 394' to stop safely. The relocated crossing will be visible from more than 2000' in each direction. Assuming a train speed of 10 mph, a driver traveling at 45 mph needs to see a train when it is 105' from the crossing from a point 394' down the highway. The sight distance available in each quadrant from the safe stopping distance will exceed 1000'.

At all crossings, except those with gates, a driver stopped 15' short of the near rail must be able to see far enough down the track, in both directions, to determine if sufficient time exists for moving their vehicle safely across the tracks to a point 15' past the far rail, prior to the arrival of a train. Required clearing sight distance along both directions of the track, from the stopped position of the vehicle, is dependent upon the maximum train speed and the acceleration characteristics of the "design" vehicle. The necessary clearing sight distance at the CTH 'CV' crossing is 295'. The available clearing sight distance will be more than 295'. However, while

there are no obstructions in the clearing sight distance vision triangles, a motorist might not be able to see a train approach from the right due to the left-hand forward skew of the crossing.

The right-of-way needed to provide and maintain adequate corner and clearing sight distances is all owned by Dane County (except that part within the railroad right-of-way).

The exposure factor at this crossing is 21,600. The exposure factor at this crossing will exceed 28,000 in the design year assuming 2 train movements per day. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

Four train-vehicle accidents have occurred at this crossing since 1973. The crashes occurred in 1978, 1984, 2001, and 2003. The 2001 and 2003 crashes occurred during foggy conditions.

The crossing presently has 8" incandescent automatic flashing lights and advance warning signs for warning devices. These warning devices are not adequate. The existing warning devices will be adequate until such time as the new warning devices are installed. Mast-mounted 12" LED automatic flashing lights with gates and constant warning time circuitry with the raised medians will adequately protect public safety.

In summary, the relocation of the crossing at-grade of the Soo Line Railroad Co. tracks with CTH 'CV' will promote public safety and convenience by removing the crossing from the airport's runway safety area, improving the warning devices, improving the crossing surface, installing medians, and improving the roadway geometry on the approaches to the crossing.

The project will be constructed in stages. At times either the existing or the relocated roadway will be open to public travel, the crossing surface will be in place, but trains will be physically unable to reach the crossing. During such times Dane County shall install "Tracks Out of Service" signs.

It should also be noted that the highway contractor will actually construct the relocated crossing under agreement with the Soo Line Railroad Co.

**Source of funding:** The project will pay the entire costs for both the crossing work and the signal materials and installation.

#### Ultimate Conclusions on the Issues

# THE COMMISSIONER CONCLUDES:

- 1. That the relocation of the crossing at-grade of CTH 'CV' with the Soo Line Railroad Co. tracks in accordance with the design plans of the Wisconsin Department of Transportation and Dane County in the Town of Burke, Dane County will promote public safety and convenience.
- 2. That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED automatic flashing lights with gates.

3. That it is reasonable that the Soo Line Railroad Co. bear no part of the cost for the crossing construction.

#### Conclusion of Law

#### THE COMMISSIONER CONCLUDES:

That the jurisdiction of the Office of the Commissioner of Railroads under §§195.28 and 195.29, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

## Order

#### THE COMMISSIONER ORDERS:

- 1. That the Wisconsin Department of Transportation and Dane County shall install and the Soo Line Railroad Co. shall maintain a crossing at-grade of CTH 'CV' with its tracks in accordance with the design plans of the Wisconsin Department of Transportation and Dane County in the Town of Burke, Dane County as part of the project. (Crossing No. 392 328K / MP 28.73)
- 2. That the **Soo Line Railroad Co.** shall install and maintain 12" LED automatic flashing lights with gates, constant warning time circuitry, and other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with CTH 'CV' at-grade in the Town of Burke, Dane County by **March 31, 2006** (Crossing No. 392 328K / MP 28.73).
- 3. That the **Soo Line Railroad Co.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.
- 4. That the signal installation work herein ordered shall not begin until the district office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.
- 5. That **Dane County** shall maintain a clear view within the required sight triangles (except that part within the railroad right-of-way). That **Dane County** shall remove any obstructions within those sight triangles (except that part within the railroad right-of-way), including earth embankments, as part of the project. The triangles are formed by connecting the following points: a) the intersection of the centerline of the roadway and the near rail of the tracks; b) a point 105' down the tracks and; c) a point 394' along the roadway from the near rail of the tracks.

- 6. That **Dane County** shall install "Tracks Out of Service" signs at any time that the roadway is open to public travel, the crossing is in place, but trains are physically unable to reach the crossing.
- 7. That the **Dane County** shall install and maintain advance warning signs (sign W10-1) a distance from the crossing in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) on each approach by **March 1, 2006**.
- 8. That the **Soo Line Railroad Co.** shall bear no part of the cost of the crossing construction, except for any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.
  - 9. That jurisdiction is retained.

Dated at Madison, Wisconsin, _		
By the Office of the Commission	ner of Railroads.	
	Rodney W. Kreunen	
	Commissioner of Railroads	

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